

### **REMARKS/ARGUMENTS**

Claims 1 and 4-30 remain in the application. Claims 9-29 have been withdrawn. No claims have been amended. Reconsideration of this application, in view of the following remarks/arguments, is respectfully requested.

Claims 1, 4-8, and 30 stand rejected under 35 USC § 103(a) as being unpatentable over Shimizu U. S. Patent No. 5,085,217 in view of Cartmell et al. U. S. Patent No. 6,076,002. This rejection is respectfully traversed for the following reasons.

Shimizu, U. S. Patent No. 5,085,217 (hereinafter "Shimizu"), discloses a pad for securing a stimulus electrode plate on a living body, wherein the stimulus electrode plate includes first and second electrode plates positioned close to each other and integrally formed with a low frequency medical treatment apparatus. The pad includes an insulated substrate sheet which has a profiled portion and a grip projecting outwardly from the profiled portion. The profile portion has a front side confronting a living body and a rear side confronting the stimulus electrode plate. The sheet also includes first and second portions with a center portion defined therebetween. The pad also includes a first pad disposed on the first portion, wherein the first pad has first and second gelhydrate layers. The first gelhydrate layer is positioned at the front side of the first portion, and the second gelhydrate layer is positioned at the rear side of the first portion. The first and second layers are electrically connected to each other, and have conductive and adhesive characteristics. The second pad is disposed on the second portion, wherein the second pad has third and fourth gelhydrate layers. The third gelhydrate layer is positioned at the front side of the second portion, and the fourth gelhydrate layer is positioned at the rear side of the second portion.

Cartmell et al., U. S. Patent No. 6,076,002 (hereinafter "Cartmell et al."), discloses a biomedical electrode for an electrocardiograph or similar device.

The biomedical electrode includes a disposable electrode having an electrically conductive gel layer and a smooth layer film. The disposable electrode interfaces with a reusable leadwire connector having the relatively expensive metallic conductive material.

Claims 1 and 30 recite that the assembly includes "masses of hydrogel" and that these masses of hydrogel are "elongated strips having widths less than the inter-electrode gap even when deformed under contact with the electrodes and the skin." This feature is illustrated in **FIGS. 8a, 8b, 8c, and 8d and described at page 13, line 8 through page 14, line 6 of the specification.** The Examiner has admitted that this feature is neither disclosed nor suggested in Shimizu (see page 3 of the Office Action). Applicants agree with this admission of the Examiner. The Examiner maintains that "Cartmell discloses wherein the masses of hydrogel are elongated strips having widths less than the inter-electrode gap even when deformed under contact with the electrodes and the skin (Fig. 2) as means to prevent the electrodes from shorting out." Applicants do not agree with this assertion. Referring to FIGS. 1, 2, 3, and 5 of Cartmell et al., it can be seen that the electrically conductive gel layer, designated by the reference numeral 20 (in FIGS. 1, 2, and 3 of Cartmell et al.) and by the reference numeral 72 (in FIG. 5 of Cartmell et al.), is not present in the form of elongated strips. **See Exhibits AR I, AR II, and AR III** attached hereto, which, by means of annotations, clearly show that the electrically conductive gel layer does not comprise a plurality of masses of hydrogel, wherein the masses of hydrogel are elongated strips having widths less than the inter-electrode gap even when deformed under contact with the electrodes and the skin as means to prevent the electrodes from shorting out. FIGS. 1, 3, and 5 show that the gel layer (item 20 in FIGS. 1, 2, and 3 and item 72 in FIG. 5 of Cartmell et al.) is a unitary strip, **not** a plurality of strips. Furthermore, it can be seen that the electrically conductive gel layer shown in Cartmell et al. has a width "w" greater than the inter-electrode gap "g" at any time. The distance "g" represents the gap between the electrode 12 and like electrode adjacent thereto. In addition, a

thorough reading of Cartmell et al. reveals how the electrically conductive gel layer described in Cartmell et al. is prepared. Referring now to column 14, lines 51-55 of Cartmell et al.:

An electrically conductive gel web 70 is provided having an electrically conductive gel layer 72 laminated to an anchoring layer 74 having perforated portion 76. Electrically conductive gel web 70 is applied to the lower surface of top layer 64 and by means of adhesive 66.

Thus, it is clear that in Cartmell et al., the electrically conductive gel is provided as a single, continuous layer, not as a plurality of elongated strips. In view of the visual and textual disclosures of Cartmell et al., it is submitted that Cartmell et al. does not remedy the deficiency in Shimizu pointed out by the Examiner, namely, that Shimizu fails to disclose or suggest masses of hydrogel in the form of a plurality of elongated strips. For this reason, it is submitted that the combination of Shimizu and Cartmell et al., fails to render claims 1, 4-8, and 30 obvious to one of ordinary skill in the art.


Claims 4-8 depend from claim 1. Accordingly, claims 4-8 require that the masses of hydrogel be in the form of elongated strips and have widths less than the inter-electrode gap even when deformed under contact with the electrodes and the skin. As indicated in the arguments relating to claims 1 and 30 in the previous paragraph, Cartmell et al. does not remedy the deficiency in Shimizu pointed out by the Examiner, namely, that Shimizu fails to disclose or suggest masses of hydrogel in the form of a plurality of elongated strips. For this reason, it is submitted that the combination of Shimizu and Cartmell et al., fails to render claims 1, 4-8, and 30 obvious to one of ordinary skill in the art.

In view of the foregoing, it is submitted that claim 1, 4-8, and 30 are in condition for allowance, and official Notice of Allowance is respectfully requested.

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